

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re:	Paul Mattackal Verghese	Confirmation No:	6972
Serial No:	10/743,238	Group:	2872
Filed:	December 22, 2003	Examiner:	Chang, Audrey Y.
For:	Dual Membrane Single Cavity Fabry Perot MEMS Filter		
Customer No.:	25263		
Attorney Docket No.	0005.1120US1		

### **Petition Under Rule 181**

#### **Commissioner for Patents**

P.O. Box 14507  
Alexandria, Virginia 22313-1450

Sir:

This is the Applicant's Petition from the Office Action, mailed November 6, 2006 (Paper No. 20060801).

A two-month extension is requested for this response.

#### **Statement of Facts**

##### Drawing Objection under 37 CFR 1.83(a):

1. The drawings were objected to under 37 C.F.R. § 1.83(a) for failing to show every feature of the claimed invention. Specifically, the Office Action stated that the “optical port through the substrate of at least one of the first membrane device” of claims 8 and 17 was not shown in the drawings.

2. Fig. 1 from the application is as follows:



[0020] In the preferred embodiment, each of the membrane devices is based on the Polders SOI MEMS membrane device. Specifically, each of the membrane devices A, B includes a handle wafer 114. (Note that the A and B designators after the reference numerals are used to indicate the corresponding membrane device.) A sacrificial oxide layer 116 is used to separate the handle wafer 114 from a device layer 118. A membrane 120 is fabricated in each of the membrane devices A, B by removing the sacrificial release layer 116 from underneath the membrane structure 120. Further, according to the preferred embodiment, a backside optical port 122 is provided in the handle wafer material or substrate 114 so that the optical signal being transmitted along the optical axis A can be injected directly into the Fabry-Perot cavity 112. Antireflective coatings are further preferably deposited on the backsides of the membranes layers 118 to minimize parasitic reflections.

Drawing Objection under 37 CFR 1.84(p)(4):

1. The drawings were objected to under 37 C.F.R. § 1.84(p)(4) because of the use of reference characters. Specifically the Office Action states: "reference characters "114-A and (114-B)" and "122-A (and 122-B)" have **both** been used to designate the substrate."

2. Fig. 1 from the application is as follows:

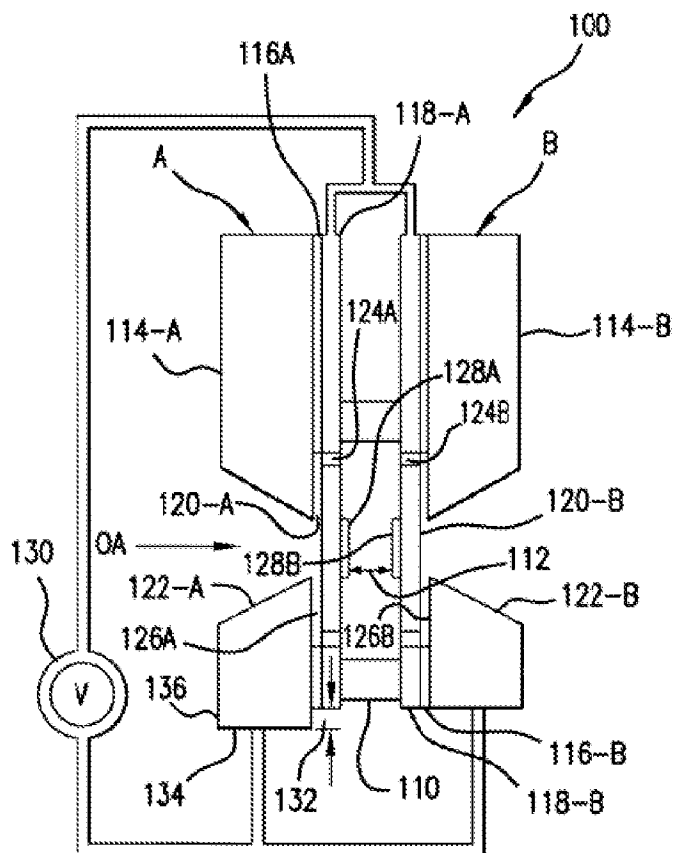


FIG. 1

Please note that reference numerals 114-A refers to the substrate of Device A and 114-B refers to the substrate of Device B. Similarly, 122-A refers to the port through the substrate 114-A, and 122-B refers to the port through substrates 114-B of Device B.

## Argument

### Drawing Objection 37 C.F.R. § 1.83(a):

The drawings show "an optical port through the substrate of at least one of the first membrane devices" contrary to the Office Action. The optical port through the substrate is clearly shown in the figure. Specifically, Fig. 1 shows a first optical port 122-A through substrate 114-A of Device A.

Thus, the figures show the subject matter of the claims.

Thus, withdrawal of these objections is respectfully requested.

Drawing Objection 37 C.F.R. § 1.84(p)(4):

The drawings do not use the same reference characters for different elements contrary to the assertion from the Office Action that: "reference characters "114-A and (114-B)" and "122-A (and 122-B)" have **both** been used to designate the substrate."

Reference numerals 114-A, 114-B refer to different substrates for different devices.

Reference numerals 122-A, 122-B refer to different ports through different substrates of different devices.

Thus, withdrawal of these objections is respectfully requested.

For the foregoing reasons, Applicant believes that the pending objections should be withdrawn. Should any questions arise, please contact the undersigned.

Respectfully submitted,

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